

ABSTRACT OF THE DISCLOSURE

Disclosed are a double-layer perpendicular magnetic recording medium having a high medium S/N at a recording density of 50 Gbit or more per square inch and a magnetic storage apparatus with high reliability, which shows a low error rate. In the perpendicular magnetic recording medium in which a pre-coating layer, a soft magnetic underlayer, an intermediate layer, and a perpendicular recording layer are sequentially formed on a substrate, the soft magnetic underlayer contains Fe, Ta and C as main components, a Ta concentration is set to a range from 8 at% to 15 at%, and a ratio of a C concentration to the Ta concentration (C concentration/Ta concentration) is set to a range from 0.5 to 0.9.